



CHICAGO MINIATURE LAMP WORKS

4433 Ravenswood Avenue, Chicago, Illinois 60640

Phone: 312-784-1020

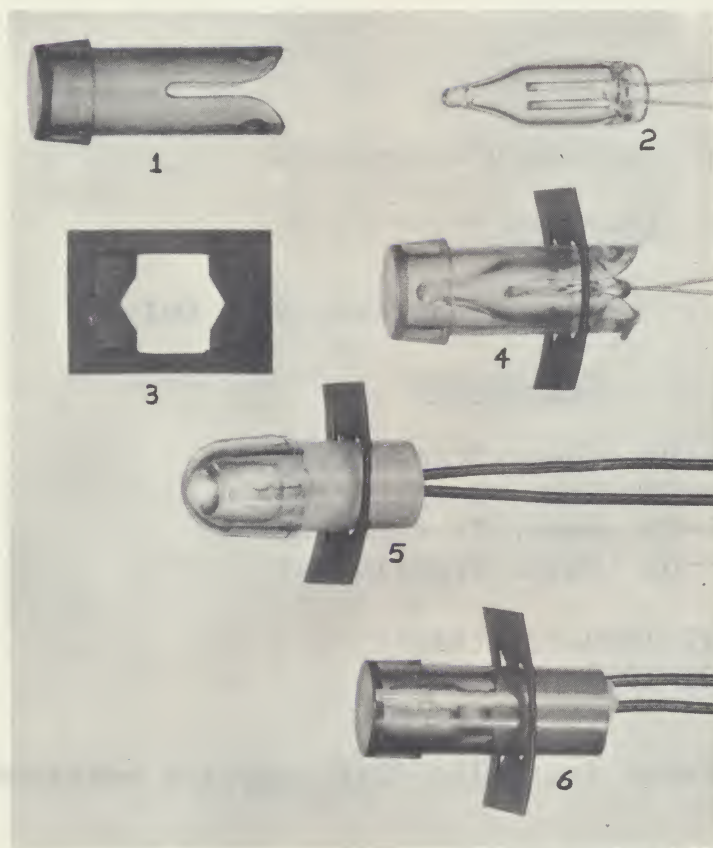
• TWX: 312-222-9403

PRODUCT DEVELOPMENT

No. #102A.....

Date SEPT. 1966

CM22 SERIES PEANUT LITE



- Low Cost
- Simple Assembly
- Wide Range of Lamp Voltages
- Speed Clip Mount
- Color Variety
- Wire Leads

- 1 - CM22-1000-XX Type Peanut Lite
- 2 - NE2E Lamp
- 3 - Mounting Clip
- 4 - CM22-1000-XX Assembled With Lamp and Clip
- 5 - CM22-1-XX Type Peanut Lite With Lamp and Clip
- 6 - CM22-2-XX Type Peanut Lite With Lamp and Clip

GENERAL INFORMATION

Two concepts of Peanut Lite are offered: 1) Snap-In Neon Type
2) Potted Incandescent Type

The Snap-In Neon Type, CM22-1000-XX, accepts most T-2 neons which are easily snapped into the butyrate shell. Two shoulders inside the shell hold the neon lamp in place during operation. Wire leads can be soldered to the neon dumet wire before or after installation in panel. Speed clips are supplied for panel mounting. These units are supplied un-assembled.

The Potted Incandescent Type, CM22-1-XX and CM22-2-XX, feature a high temperature polycarbonate shell with T-1 3/4 lamp and 4" wire leads permanently potted in place for strain relief. Speed clips are supplied for panel mounting. Two different styles of caps are available: short cylindrical and macrodome. A wide range of different voltage lamps are available, from 2.7 to 28.0 volts. (See Table) Units are available with any T-1 3/4 lamp. See Ordering Information and T-1 3/4 unbased lamp listing in our CM-1 catalog.

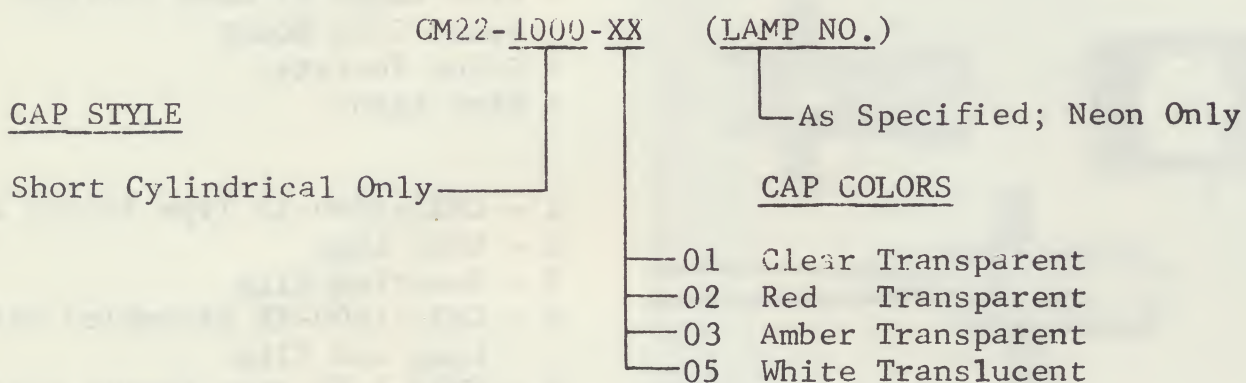
APPLICATIONS

Both of the Peanut Lite concepts offer a low cost, versatile indicator for commercial or industrial applications. Peanut Lites are used in applications such as stereo amplifiers, mobile equipment, computers, display panels, etc.

ORDERING INFORMATION

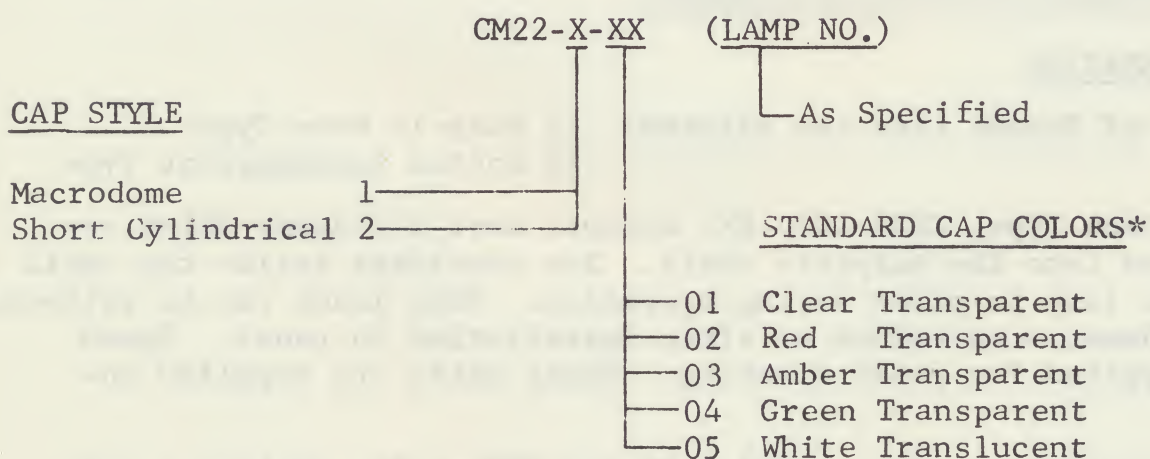
Order by part numbers below:

SNAP-IN NEON TYPE: Bulb and clip supplied unassembled.



EXAMPLE: CM22-1000-03 (NE2E)
CM22-1000-02 (NE2H)

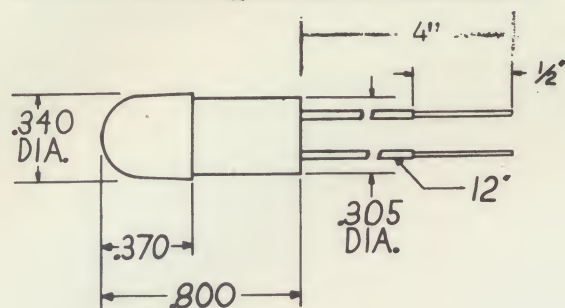
POTTED INCANDESCENT TYPE: Bulb potted in shell; Clip supplied unassembled.



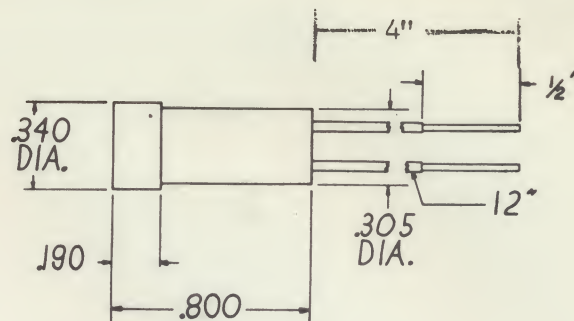
EXAMPLE: CM22-1-02 (1764)
CM22-2-01 (1705)
CM22-2-05 (1738)

*Other Colors Available On Request.

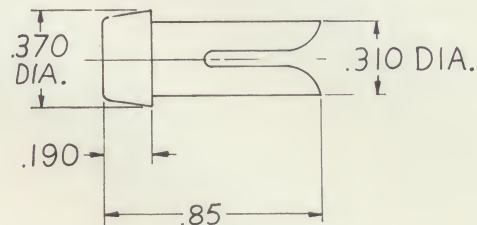
DIMENSIONAL CHARACTERISTICS



CM22-1-XX Type



CM22-2-XX Type



CM22-1000-XX Type

SPECIFICATIONS

CM22-1000-XX

Body: Butyrate
Lamps Suggested: NE2,
NE2E,
NE2H,
Etc.

CM22-1-XX; CM22-2-XX

Potting: Epoxy
Body: Polycarbonate
Wire Leads: #24 A.W.G. - Type B
Insulation Per
MIL-W-16878 (4" Long)
Lamp Size: T-1 3/4 Incandescent
And Most T-2 Neons
Lamp Characteristics: See Table Below

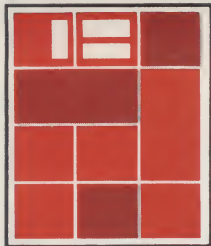
TABLE

<u>UNBASED LAMP PART NUMBER</u>	<u>DESIGN VOLTS*</u>	<u>DESIGN CURRENT</u>	<u>M.S.C.P.</u>	<u>AVERAGE LIFE</u>
1764	28.0	.040	.34	1,000 HRS.
1705	14.0	.080	.50	750 HRS.
1705 (Derated)	12.0	.070	.25	10,000 HRS.
1859	10.0	.015	.008	10,000 HRS.
2112	6.3	.200	.55	3,000 HRS.
2112 (Derated)	6.0	.190	.40	10,000 HRS.
1738	2.7	.060	.04	500 HRS.
2180	6.3	.04	.02	50,000 HRS.
2181	6.3	.20	.40	50,000 HRS.
2102	18.0	.04	.15	1,000 HRS.
2185	28.0	.04	.20	50,000 HRS.

*Other voltages are available in T-1 3/4 size; refer to CM-1 catalog

For technical assistance, price and delivery information contact
Chicago Miniature Lamp Works, 4433 North Ravenswood Avenue, Chicago,
Illinois 60640 - TELEPHONE: 784-1020, Area Code 312.

"Copyright 1966 C
Chicago Miniature Lamp Works"



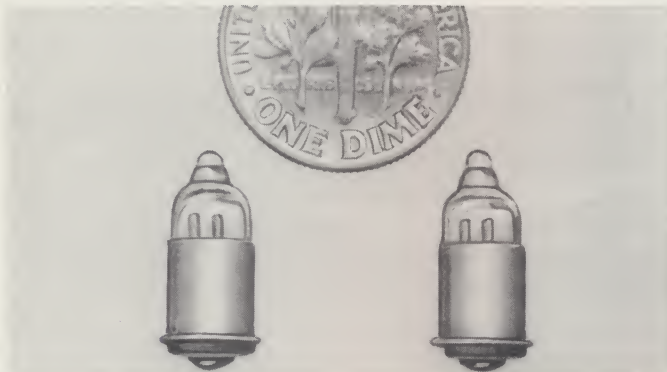
PRODUCT DEVELOPMENT RELEASE

CHICAGO MINIATURE LAMP WORKS

NO.: 112

DATE: 5-67

SUBJECT: A1G AND A-1H
NEON GLOW LAMPS



- EQUIVALENT SIZE OF A 327 OR 328
- SINGLE CONTACT, MIDGET FLANGED BASE
- EASILY REPLACEABLE
- NO TRANSFORMER REQUIRED
- SHOCK AND VIBRATION RESISTANT

GENERAL INFORMATION

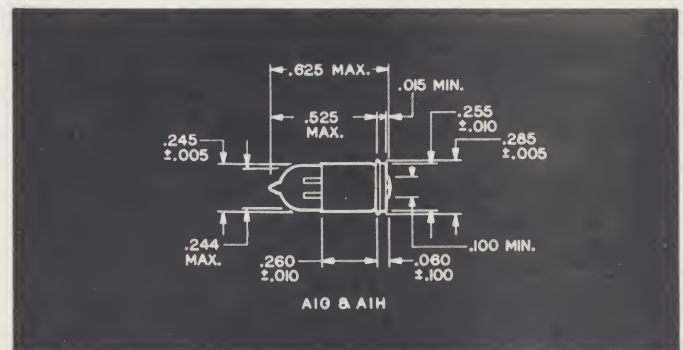
The A1G and A1H are small sized glow lamps designed for use as indicator lights in circuits where lower-voltaged, T-1 $\frac{3}{4}$ single contact, midget flanged, incandescent lamps are now being used.

They are available in both the standard (A1G) and high brightness (A1H) types. The addition of a mild radio active additive, to the A1H, reduces the dark effect. The A1H will produce approximately 8 times the brightness of the A1G under equal conditions. The average life for both lamps is 25,000 hours. Formed tip construction is utilized in both lamps for better end viewing.

The A1G operates on 105-125 volts AC or DC, and the A1H requires 105-125 volts AC or 150 volts DC.

These standard, easily replaceable lamps fit all single contact, midget flanged sockets. The need for a transformer is eliminated when they are operated in series with a resistor, directly from a 110-volt line. The A1G and A1H are better able to withstand shock and vibration than their incandescent counterparts.

DIMENSIONS

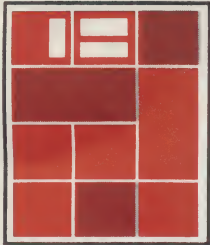


LAMP SPECIFICATIONS

LAMP NUMBER	CIRCUIT VOLTS	NOMINAL CURRENT (MA)	NOMINAL WATTS	BULB	BASE	MOL	MAXIMUM STARTING VOLTAGE AC DC	SERIES RESISTANCE (OHMS)	AVERAGE USEFUL LIFE
A1G	105-125 AC or DC	.3	1/25	T-2	S.C. Mid. Flanged	5/8"	65 90	220,000*	25,000
A1H	105-125 AC, 150 DC	.8	1/10	T-2	S.C. Mid. Flanged	5/8"	95 135	68,000*	25,000

*External series resistance of this value required for nominal current operation.





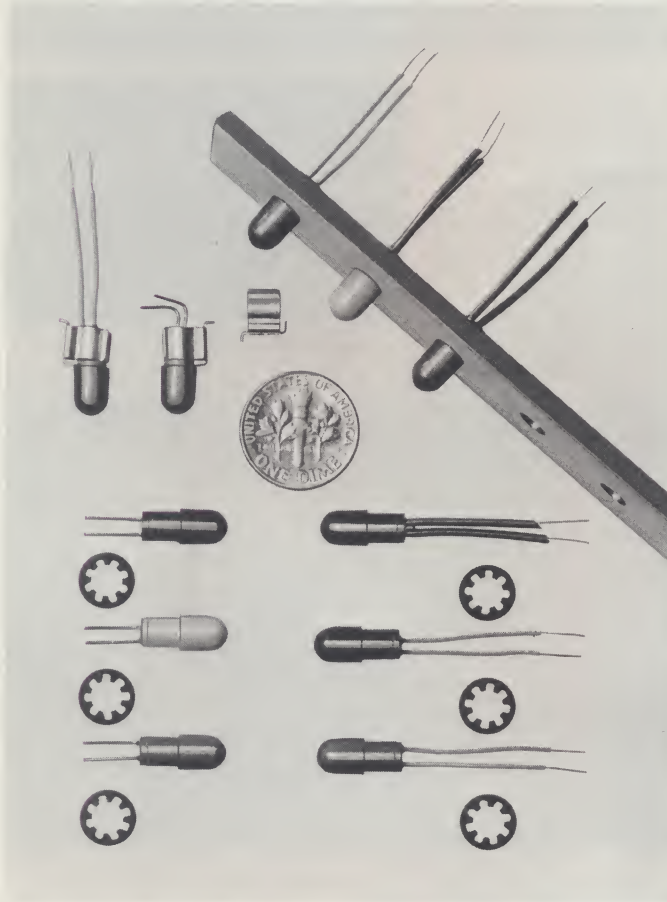
PRODUCT DEVELOPMENT RELEASE

CHICAGO MINIATURE LAMP WORKS

NO.: 111

DATE: 5-67

SUBJECT: CM22 T-1
SERIES PEANUT LITE



- 3 TO 28 VOLT RANGE
- SIMPLE MOUNTING ON 1/4" CENTERS
- TWO TERMINATION STYLES
- PRINTED CIRCUIT BOARD MOUNTING
- ECONOMICAL SUBSTITUTE FOR MS INDICATORS

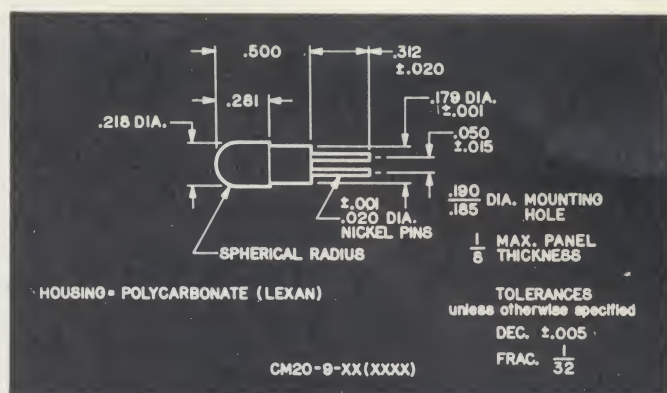
GENERAL INFORMATION

The T-1 Series Peanut Lite provides a new approach to ultra-miniature panel indicators. It is a long life T-1 lamp sealed in a high temperature polycarbonate (Lexan) housing. Mounting is easily accomplished with the Fastex Springrip Fasteners, provided. They can also be bonded to panels with epoxy.

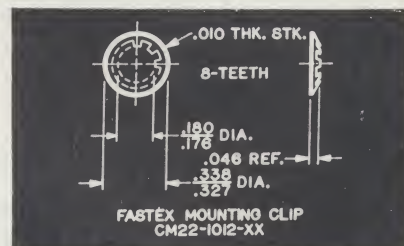
Strain relieved wire leads are available where soldered connections are required. Pin contacts can be supplied for "quick-disconnect" with the CM21-1 socket, or soldering purposes. Where circuit board mounting is required, a 10384 clip can be supplied.

The T-1 Series Peanut Lite is a low cost commercial substitute for MS25446 and MS90308.





HOUSING	POLYCARBONATE (LEXAN)
LEADS	#30 A.W.G. (.010), TINNED
LEAD INSULATION	PVC, COLOR CODED, TO INDICATE VOLTAGE
PINS	.020 DIAMETER NICKEL WIRE
MOUNTING CLIP	SPRING STEEL, PARKERIZED FINISH
MAX. PANEL THICKNESS	1/8 INCH
MOUNTING HOLE	.190 DIA. .185



LAMP REFERENCE NO.	DESIGN VOLTS	DESIGN AMPS	M.S.C.P.	AVERAGE LIFE	INSULATION COLOR
1062	5.0	.030	.025	75M HRS.	RED
680	5.0	.060	.032	200M HRS.	RED
683	5.0	.060	.053	100M HRS.	RED
713	5.0	.075	.088	25M HRS.	RED
715	5.0	.115	.147	40M HRS.	RED
715F1	5.0	.125	.220	5M HRS.	RED
1088	10.0	.027	.100	10M HRS.	YELLOW
1111	14.0	.065	.150	12M HRS.	BLUE
1092	18.0	.026	.150	10M HRS.	GREEN
6838	28.0	.024	.150	16M HRS.	BLACK

CM22 - X - XX (Lamp Reference Number)

TERMINATION	CAP COLORS
Wire Leads (8)	White Translucent 05
Nickel Pins (9)	Red Translucent 07
	Amber Translucent 09
	Green Translucent 10
	Blue Translucent 11

- Furnished with wire leads to length and type requested
- Pins in different lengths
- Right angle pins for printed circuit board mounting
- Custom and transparent colors

For technical assistance, price and delivery information, contact the HDR (Hardware Division) of Chicago Miniature Lamp Works.



Chicago Miniature Lamp Works

INCORPORATED 1910

SPECIALISTS IN MINIATURE ILLUMINATING, INDICATING, AND ENERGY EMITTING DEVICES



GENERAL OFFICES and PLANT

4433 N. Ravenswood Avenue
Chicago, Illinois 60640

Telephone: (312) 784-1020
TWX: 312-222-9403

REPRESENTATION BY STATES (See Alphabetical List On Reverse) (OEM=Original Equipment Mfrs.) (Dist.=Distributor)

ALABAMA	Cartwright & Bean	OEM & DIST.	NEW YORK CITY	F. F. Sylvester Associates	OEM Only
ALASKA	James J. Backer Company Inc.	OEM & DIST.		(Metropolitan*)	
ARIZONA	Howe & Howe Sales, Inc.	OEM & DIST.		Jules J. Bressler	DIST. Only
ARKANSAS	Cartwright & Bean	OEM & DIST.		(Metropolitan*)	
CALIFORNIA	CMLC-Hugh Corkery (Northern)	OEM & DIST.		(*Plus Long Island, Westchester	
	CMLC-Jack McKim (Southern)	OEM & DIST.		and Rockland Counties)	
COLORADO	Nelson Company, Inc.	OEM & DIST.	NEW YORK	Frank W. Taylor Company **	OEM Only
CONNECTICUT	Gerber Sales Company, Inc.	OEM & DIST.	UPSTATE	Callahan-Ferguson **	DIST. Only
DELEWARE	Kaufholz Associates	OEM Only		(**Except Long Island, N.Y.C.,	
	Pearlman & Associates	DIST. Only		Westchester & Rockland Counties)	
DIST. OF	Kaufholz Associates	OEM Only	NORTH CAROLINA	Cartwright & Bean	OEM & DIST.
COLUMBIA	Pearlman & Associates	DIST. Only	NORTH DAKOTA	Wenco Sales	OEM & DIST.
FLORIDA	Cartwright & Bean	OEM & DIST.	OHIO	Thomas Shelby & Company	OEM & DIST.
GEORGIA	Cartwright & Bean	OEM & DIST.	OKLAHOMA	Techno Associates	OEM Only
HAWAII	CMLC-Jack McKim	OEM & DIST.		Ernest L. Wilks Company	DIST. Only
IDAHO	James J. Backer Company, Inc.	OEM & DIST.	OREGON	James J. Backer Company, Inc.	OEM & DIST.
ILLINOIS	CMLW-Tom Simon (Northern)	OEM Only	PENNSYLVANIA	Kaufholz Associates (Eastern)	OEM Only
	CMLW-Gordon Anderson (Northern)	DIST. Only		Pearlman & Associates (Eastern)	DIST. Only
	Koenig-Meyers Ass. (Southern)	OEM & DIST.		Thomas Shelby & Company (Western)	OEM & DIST.
INDIANA	Burton F. Homsher Company	OEM & DIST.	RHODE ISLAND	Gerber Sales Company, Inc.	OEM & DIST.
	(Exc. N.W. Counties of Lake,		SOUTH CAROLINA	Cartwright & Bean	OEM & DIST.
	Porter and LaPorte for OEM)		SOUTH DAKOTA	Wenco Sales	OEM & DIST.
	CMLW-Tom Simon (N.W. Indiana)	OEM Only	TENNESSEE	Cartwright & Bean	OEM & DIST.
IOWA	Koenig-Meyers Associates	OEM & DIST.	TEXAS	Techno Associates #	OEM Only
KANSAS	Koenig-Meyers Associates	OEM & DIST.		Ernest L. Wilks Company #	DIST. Only
KENTUCKY	Burton F. Homsher Company	OEM & DIST.		(#Except Bowie & El Paso Counties)	
LOUISIANA	Cartwright & Bean	OEM & DIST.		Nelson Company, Inc.	OEM & DIST.
MAINE	Gerber Sales Company, Inc.	OEM & DIST.		(El Paso County Only)	
MARYLAND	Kaufholz Associates	OEM Only		Cartwright & Bean	OEM & DIST.
	Pearlman & Associates	DIST. Only		(Bowie County Only)	
MASSACHUSETTS	Gerber Sales Company, Inc.	OEM & DIST.	UTAH	Nelson Company, Inc.	OEM & DIST.
MICHIGAN	Villani-Pitcher, Inc.	OEM & DIST.	VERMONT	Gerber Sales Company, Inc.	OEM & DIST.
MINNESOTA	Wenco Sales	OEM & DIST.	VIRGINIA	Kaufholz Associates	OEM Only
MISSISSIPPI	Cartwright & Bean	OEM & DIST.		Cartwright & Bean	DIST. Only
MONTANA	Nelson Company, Inc.	OEM & DIST.		(Exc. Fairfax & Arlington Counties)	
NEBRASKA	Koenig-Meyers Associates	OEM & DIST.		Pearlman & Associates	DIST. Only
	(Eastern & Central)			(Fairfax & Arlington Counties only)	
	Nelson Company, Inc.	OEM & DIST.	WASHINGTON	James J. Backer Company	OEM & DIST.
	(Western)		WEST VIRGINIA	Thomas Shelby & Company	OEM & DIST.
NEVADA	CMLC-Hugh Corkery (Northern)	OEM & DIST.	WISCONSIN	Wenco Sales (Western)	OEM & DIST.
	CMLC-Jack McKim (Southern)	OEM & DIST.		CMLW-Tom Simon (Central)	OEM Only
NEW HAMPSHIRE	Gerber Sales Company, Inc.	OEM & DIST.		CMLW-Gordon Anderson (Central)	DIST. Only
NEW JERSEY	F. F. Sylvester Assoc. (Northern)	OEM Only	WYOMING	Nelson Company, Inc.	OEM & DIST.
	Jules J. Bressler, Inc. (Northern)	DIST. Only			
	Kaufholz Associates (Southern)	OEM Only	CANADA	Lake Engineering Co., Ltd.	OEM & DIST.
	Pearlman & Associates (Southern)	DIST. Only	INTERNATIONAL	E. D. Magnus & Assoc., Inc.	OEM & DIST.
NEW MEXICO	Nelson Company, Inc.	OEM & DIST.			

BACKER, JAMES J. CO.
Seattle, Washington 98119
221 West Galer Street
P. O. Box 9327
206-283-6470
TWX: 910-444-1646 *

BRESSLER, JULES J. INC.
Union City, New Jersey 07087
4808 Bergenline Avenue
201-864-9577 (N. J.)
212-695-3727 (N. Y. C.)
TWX: 201-868-0106

CALLAHAN-FERGUSON CO.
Camillus, New York 13031
107 Greenhedge Drive
315-488-5518

Manlius, New York
117 Fayette Street
315-682-9301

CARTWRIGHT & BEAN
Memphis, Tennessee 38104
560 South Cooper Street
P. O. Box 4760
901-276-4442

Atlanta, Georgia 30305
3223 Cain's Hill Place, N. W.
404-237-2273
404-237-3108

Metairie, Louisiana 70003
1812 Bullard Avenue
504-887-0482

Charlotte, North Carolina 28205
625 Harwyn Drive
704-537-7965
704-333-6457

Orlando, Florida 32803
606 East Colonial Drive
305-425-5518

North Miami Beach, Florida 33160
20100 N. E. 25th Court
305-945-2962

Ormond Beach, Florida 32074
779 John Anderson Drive
904-677-3480

CMLC - Hugh Corkery
San Francisco, California 94105
115 New Montgomery Street
415-391-1098

CMLC - Jack McKim
Barney Kulp
George Daniels
North Hollywood, California 91602
10213 Riverside Drive
213-877-0158 (L. A.)
714-459-6473 (San Diego)

CMLW - Tom Simon - OEM
Gordon Anderson - DIST.
Chicago, Illinois 60640
4433 N. Ravenswood Avenue
312-784-1020
TWX: 910-221-5445

GERBER SALES COMPANY, INC.
Waltham, Massachusetts 02154
176 Second Avenue
617-891-8040
TWX: 617-894-0268

New Haven, Connecticut 06515
31 Broadway
P. O. Box 2917
203-777-6279

East Longmeadow, Mass. 01028
26 Maple Court
413-525-3059

BURTON F. HOMSHER COMPANY
Fort Wayne, Indiana 46805
4320 Dodge Avenue
219-483-1348

HOWE & HOWE SALES, INC.
Phoenix, Arizona 85016
4109 North 18th Street
602-264-7971
TWX: 910-951-1308

KAUFHOLZ ASSOCIATES
Newtown Square, Pa. 19073
P. O. Box 227
33 St. Albans Avenue
215-356-5000

Baltimore, Maryland 21206
P. O. Box 6232
301-486-6561

KOENIG-MYERS ASSOCIATES, INC.
Shawnee Mission, Kansas 66201
5500 Buena Vista Drive
P. O. Box 374
913-432-8300

Bridgeton, Missouri 63042
2721 Beloit Drive
314-739-1655

Urbandale, Iowa 50322
4317 65th Street
515-276-5182

LAKE ENGINEERING, LTD.
Scarborough, Ontario, Canada
123 Manville Road
416-757-3253

MAGNUS, E. D. & ASSOC., INC.
Chicago, Illinois 60645
5715 North Lincoln Avenue
312-334-1503

NELSON COMPANY, INC.
Denver, Colorado 80223
1294 South Bannock Street
303-733-5528

Albuquerque, New Mexico 87101
P. O. Box 1884
505-299-9433

Salt Lake City, Utah 84110
P. O. Box 1871
801-484-4504

PEARLMAN & ASSOCIATES
Silver Spring, Maryland 20903
1035 Ruatan Street
301-434-7090

SHELBY & CO., THOMAS
New Bremen, Ohio 45869
17 South Walnut
419-629-6517

SYLVESTER, F. F. ASSOCIATES
Springfield, New Jersey 07081
649 Morris Avenue
P. O. Box 207
201-376-3324
TWX: 710-983-4439

Great Neck, New York 11021
260 Northern Boulevard
516-487-6447

TAYLOR, FRANK W., CO., INC.
DeWitt, New York 13214
4455 East Genesee Street
315-446-0422

TECHNO ASSOCIATES
Dallas, Texas 75220
P. O. Box 20544
2324 Shore Crest Drive
214-357-9213

VILLANI-PITCHER, INC.
Dearborn, Michigan 48127
20233 Ann Arbor Trail
313-271-4600

Spring Lake, Michigan 49456
17977 Mohawk Drive
616-842-4380

WENCO SALES INC.
Minneapolis, Minnesota 55423
7728 Morgan Avenue South
612-866-3639

WILKS, ERNEST L., COMPANY
Dallas, Texas 75234
P.O. Box 14466
214-242-5321